

REMARKS

The Office Action of February 11, 2008 has been carefully considered.

Claims 17-24 stand rejected under 35 USC 102(b) as anticipated by Yoshida, newly cited, and Claims 25-27 have been rejected under 35 USC 103(a) over Yoshida in view of Pechenik.

It is noted that Claim 17 has now been amended to recite that the deformation of the support is by dilation or contraction, as was previously recited in Claim 18.

The invention relates to a method for forming a nanostructured support having a thin layer thereon which can be utilized in microelectronics, nanoelectronics, microtechnology or nanotechnology. According to the claimed method, the nanostructured support is caused to deform by dilation or contraction under the effect of a treatment which generates an internal strain, and this deformation is situated in the plane of the thin layer; as a result, thin layer is then in dilation or contraction. This thin layer must be of sufficiently small thickness that the layer remains elastic in nature, and the deformation does not cause structural defects such as dislocations or cracking in the substrate.

Yoshida is directed to a light emitting device comprising a glass substrate, a lower tungsten electrode, a GaP thin film (13) which is 300 nm in thickness (an isoelectronic trap), and an upper transparent electrode made of thin indium oxide (ITO). The process involves the formation of the isoelectronic trap by sputter deposition, which allows the formation of a polycrystalline GaP doped with N₂ on the upper tungsten layer (32). Immediately after this deposition and before the formation of the top transparent electrode, a radiation treatment is performed to promote a surface lattice rearrangement. By this heat treatment, which results in an

increase in particle diameter and removal of the non-radiating recombination center near the grain boundary, the semiconductor membrane (33) is reformed to the semiconductor membrane active layer (34) as a light emitting device.

What is important here is that Yoshida teaches *a heat treatment of the thin layer*, and not *a heat treatment of the support*. In fact, the treatment which recrystallizes the polycrystalline GaP by eximer laser has no effect on the support whatever. Yoshida does not teach deformation of the support by dilation or contraction, and corresponding dilation or contraction of the thin layer. What is taught by Yoshida is recrystallization of a layer which does not correspond to the elastic deformation of the invention.

Moreover, Yoshida does not teach one how to obtain the elastic deformation according to the invention because the purpose of Yoshida is to recrystallize a material to increase its optoelectronic properties. There is no suggestion in Yoshida of how to make a layer with a lattice parameter adapted to the material to be formed thereafter by epitaxial growth.

Pechenik has been cited to for a teaching of the use of piezoelectric thin films in nano-based devices. Pechenik, however, does not cure the defects of Yoshida, and does not disclose or suggest dilation or contraction of a support in order to obtain a corresponding dilation or contraction of a thin layer on the support.

In summary, Yoshida is thought to be no more relevant than the previously cited Romanov et al reference, which also disclosed treatment of a thin layer as opposed to treatment of the support on which the thin layer rests.

Withdrawal of these rejections is requested.

In view of the foregoing amendments and remarks, Applicants submit that the present application is now in

condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,



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